Brief Comparison of ITBS and NAEP

	NAEP	ITBS
Item formats	Multiple-choice, short constructed-response, and extended constructed-response; approximately half of a student's time should be allotted to multiple choice and rest to constructed response	Multiple choice; a constructed-response supplement is available in mathematics
Available levels	Grades 4, 8, and 12	Grades K through 12 – Levels 5 through 17/18
Proficiency Levels	Basic, Proficient, Advanced (Below Basic is not considered a proficiency level)	Low, Intermediate, High
Administration timeline	6-week period beginning in late January during selected years	Norms available for testing in fall, midyear, or spring
Administered by	Outside staff (Westat)	School staff
Administration time	Each student takes two separately-timed, 25 minute sections of items; students take only a portion of the whole test; items are distributed across the booklets using a matrix sampling balanced block design	Allotted time for each subtest varies in length
Reports	In Iowa the state level is the smallest level of report	Student, classroom, building, and district data are available; reports of item analysis are also available
Scores	State standard scores and percent at each proficiency level	State and nationally referenced standard scores, grade equivalents (levels K-15), percentile ranks
Math manipulatives	Provides for use of manipulatives including a ruler	
Math calculator	Students may use the provided calculators on portions of the test; 4th grade calculators are four-function;	District decision as to whether or not calculator use allowed

Definitions of Proficiency Levels in Mathematics

NAEP

Basic: "Fourth-grade students performing at the Basic level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content areas."

"Fourth-graders performing at the Basic level should be able to estimate and use basic facts to perform simple computations with whole numbers; show some understanding of fractions and decimals; and solve some simple real-world problems in all NAEP content areas. Students at this level should be able to use – though not always accurately – four-function calculators, rulers, and geometric shapes. Their written responses are often minimal and presented without supporting information."

Proficient: "Fourth-grade students performing at the Proficient level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content areas."

"Fourth graders performing at the Proficient level should be able to use whole numbers to estimate, compute, and determine whether results are reasonable. They should have a conceptual understanding of fractions and decimals; be able to solve real-world problems in all NAEP content areas; and use four-function calculators, rulers, and geometric shapes appropriately. Students performing at the Proficient level should employ problem-solving strategies such as identifying and using appropriate information. Their written solutions should be organized and presented both with supporting information and explanations of how they were achieved."

Advanced: "Fourth-grade students performing at the Advanced level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content areas."

"Fourth graders performing at the Advanced level should be able to solve complex nonroutine real-world problems in all NAEP content areas. They should display mastery in the use of four-function calculators, rulers, and geometric shapes. There students are expected to draw logical conclusions and justify answers and solution processes by explaining why, as well as how, they were achieved. They should go beyond the obvious in their interpretations and be able to communicate their thoughts clearly and concisely."

ITBS

Low (Weak and Marginal): "Sometimes can understand math concepts, but seldom is able to solve word problems. Rarely is able to use estimation methods or interpret data from graphs and tables."

Intermediate (Moderate and Skilled): "Usually can understand math concepts and solve word problems. Sometimes is able to use estimation methods and usually can interpret data from graphs and tables."

High (Accomplished and Distinguished): "Understands math concepts, solves word problems, and often is able to use estimation methods. Can interpret data from graphs and tables."